

**NOTES ON ORTHOPTERA FROM OKLAHOMA AND
INDIAN TERRITORY, WITH DESCRIPTIONS
OF THREE NEW SPECIES.**

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During the past summer my wife made a small collection of the Orthoptera in Oklahoma, and also collected a few specimens in the Indian Territory. The material numbers in all nearly 200 specimens constituting 33 species, three of which are apparently undescribed. The following notes are based upon this collection and a few specimens collected by myself in the two Territories at various times during the past nine years. Many of the species are mentioned merely as a matter of record:

(1.)—*Dabia minor* Linn.

Forficula minor Linn., Syst. Nat. ed., x, i, 423 (1758).

One male; Stillwater, Payne Co., Oklahoma, April 23, 1893.

(2.)—*Ischnoptera pennsylvanica* De Geer.

Blatta pennsylvanica De Geer, Mem., iii, 537, pl. 44, fig. 4 (1773).

One immature specimen under bark in the Creek Nation, Indian Territory, May 31, 1901; and two mature individuals from Stillwater, Oklahoma, in 1893. This species has not, I believe, been recorded so far south, and the specimens in my possession may belong to an allied species, though they seem to agree perfectly with typical northern species.

(3.)—*Stylopyga orientalis* Linn.

Blatta orientalis Linn., Syst. Nat. ed., x, i, 424 (1758).

Stillwater, Oklahoma, 1892.

(4.)—*Blatta germanica* Linn.

Blatta germanica Linn., Syst. Nat. ed., xii, ii, 688 (1767).

Stillwater, Okla., 1893.

(5.)—*Stagmomantis carolina* Linn.

Gryllus (Mantis) carolina Linn., Cent. Ins. Rar., 13 (1763).

Two males, one female; Perkins, Payne Co., Okla., Oct. 7, 1901.

(6.)—*Diapheromera veliei* Walsh.

Diapheromera veliei Walsh, Proc. Ent. Soc., Philada., iii, 410 (1864).

One male; Stillwater, Okla., 1894. I have seen some twelve or fifteen specimens of *Diapheromera* from Oklahoma and all of them proved to be the above species.

(7).—*Tettix ornatus* Say.

Acridium ornatus Say, Amer. Ent., pl. 5 (1824).

Collected in Payne Co., Okla., in 1893. It probably occurred in some numbers, but I have but one specimen preserved, a female. Prof. A. P. Morse is the authority for this determination.

(8).—*Tettigidea lateralis* Say.

Acridium lateralis Say, Amer. Ent., pl. 5 (1824).

Tettix polymorpha Burm., Handb. Ent., ii, 659 (1838).

Stillwater, Okla., 1892–1897. Both forms occur in considerable abundance.

(9).—*Mermiria alacris* Scudd.

Mermiria alacris Scudd., Proc. Bost. Soc. Nat. Hist., xix, 30 (1877).

Stillwater, Okla., 1893. Prof. Brunner is the authority for this determination.

(10).—*Mermiria bivittata* Serv.

Opsomala bivittata Serv., Orth., 589 (1839).

Three males, three females; Perkins, Okla., Aug. 13–16, 1901.

(11).—*Mermiria neomexicana* Thom.

Opsomala neomexicana Thom., Proc. Acad. Nat. Sc. Philad., 1870, 77 (1870).

Two females, Cherokee Nation, Indian Territory, in 1896; two males at Perkins, Okla., Aug. 13, 1901.

(12).—*Mermiria rostrata* McNeill.

Mermiria rostrata McNeill, Proc. Davenport Acad. Nat. Sc., vi, 205, 207–208, pl. i, fig. 3 (1897).

One male, one female; near Perkins, Okla., Aug. 13, 1901.

(13).—*Syrbula admirabilis* Uhl.

Stenobothrus admirabilis Uhl., Proc. Ent. Soc. Philad., ii, 553 (1864).

Three males, three females; Perkins, Okla., August, 1901. Also at Stillwater, Okla., in 1893.

(14).—*Orphulella picturata* Scudd.

Orphulella picturata Scudd., Can. Ent., xxxi, 178, 182 (1899).

One female specimen collected on August 12th at Perkins, Okla. It agrees with Scudder's description.

- (15.)—*Ageneotettix scudderi* Brun.

Aulocara scudderi Brun., Proc. U. S. Nat. Mus., xii, 63-64 (1890).

Stillwater, Okla., in 1892. Identified by Prof. Brunner.

- (16.)—*Arphia carinata* Scudd.

Edipoda carinata Scudd., Trans. Amer. Ent. Soc., ii, 306 (1869).

This specimen was collected at Stillwater in 1892, and identified by Prof. Brunner at that time. The specimen is no longer in my possession.

- (17.)—*Arphia conspersa* Scudd.

Arphia conspersa Scudd., Proc. Bost. Soc. Nat. His., xvii, 514 (1875).

One male; Stillwater, Okla., 1897.

- (18.)—*Arphia sulphurea* Fabr.

Gryllus sulphurea Fabr., Spec. Ins., i, 369 (1781).

Stillwater, Okla., 1892 to 1897; Perkins, Okla., 1901.

- (19.)—*Arphia xanthoptera* Burm.

Edipoda xanthoptera Burm., Handb. Ent., ii, 643 (1838).

Two females, Stillwater, Okla., 1892; two males, Perkins, Okla., Aug. 13, 1901.

- (20.)—*Chortophaga viridifasciata* DeGeer.

Acridium viridifasciata DeGeer, Mem., iii, 498, pl. 42, fig. 6 (1773).

Stillwater and Perkins, Okla. Very common, green and brown forms occurring in equal abundance.

- (21.)—*Hippiscus phœnicopterus* Burm.

Edipoda phœnicopterus Burm., Handb. Ent., ii, 643 (1838).

One female, Stillwater, Okla., 1892; two males, three females, Perkins, Okla., August, 1901.

- (22.)—*Hippiscus tuberculatus* Palis.

Acridium tuberculatus Palis., Ins. Afr. Amer., 145, pl. 4, fig. 1 (1817).

One large female, collected in Cherokee Nation, Indian Territory, in 1894.

- (23.)—*Hippiscus variegatus* Scudd.

Hippiscus variegatus Scudd., Psyche, vi, 268, 301 (1892).

Identified by Prof. Bruner from specimens collected at Stillwater, Okla., in 1893.

- (24.)—*Dissosteira carolina* Linn.

Gryllus (Locusta) carolina Linn., Syst. Nat., ed. x, i, 433 (1758).

Very common at Perkins, Okla.

- (25.)—*Dissosteira longipennis* Thom.

Elipoda longipennis Thom., Ann. Rept. U. S. Geol. Surv. Terr., v, 463 (1872).

One female; Perkins, Okla., Aug. 16, 1901. Collected by Miss Lulu Cundiff.

- (26.)—*Spharagemon cristatum* Scudd.

Spharagemon cristatum Scudd., Proc. Bost. Soc. Nat. Hist., xvii, 470 (1875).

Two males; Perkins, Okla., Aug. 16, 1901. Collected by Mr. Orvil Cundiff.

- (27.)—*Trimerotropis cincta* Thom.

Elipoda cincta Thom., Proc. Acad. Nat. Sc. Philada., 1870-80 (1870).

Collected in 1892 at Stillwater, Okla., and identified by Prof. Bruner.

- (28.)—*Trimerotropis citrina* Scudd.

Trimerotropis citrina Scudd., Bull. U. S. Geol. Surv. Terr., ii, 265 (1876).

One male, one female; Stillwater, Okla., 1893. Several specimens of both sexes at Perkins, Okla., in August, 1901, by Mr. Vivian Cundiff.

- (29.)—*Hadrotettix trifasciatus* Say.

Gryllus trifasciatus Say, Amer. Ent., iii, pl. 34 (1828).

Stillwater, Okla., 1893.

- (30.)—*Brachystola magna* Gir.

Brachypeplus magna Gir., Marcy Expl. Red River, 260, pl. 15, figs. 1-2 (1853).

Not usually common. Collected several miles southwest of Stillwater, Okla.

- (31.)—*Schistocerca alutacea* Harr.

Acridium alutacea Harr., Ins. Inj. Veg., 139 (1841).

Five males, three females; Perkins, Okla., Aug. 18, 1901.

- (32.)—*Schistocerca americana* Drury.

Gryllus americana Drury, Ill. Nat. Hist., i, 128, pl. 49, fig. 2 (1770).

Very common in the valley of the Cimarron River near Perkins, Okla., and is found commonly throughout both Oklahoma and the Indian Territory. In 1895 I saw a large female in active flight on the 18th of January in the Cherokee Nation, Indian Territory.

- (33.)—*Schistocerca damnifica* Sauss.

Acridium damnifica Sauss., Rev. Mag. Zool., 1861, 164 (1861).

Typical specimens from Perkins, Okla., in May, 1901.

(34).—*Melanoplus atlanis* Riley.*Caloptenus atlanis* Riley, Ann. Rep. Ins. Mo., vii, 169 (1875).

Stillwater, Okla., 1893.

(35).—*Melanoplus bispinosus* Scudd.*Melanoplus bispinosus* Scudd., Proc. Amer. Phil. Soc., xxxvi, 25, 34 (1897).

One male, one female; near Perkins, Okla., Aug. 16, 1901.

(36).—*Melanoplus bivittatus* Say.*Gryllus bivittatus* Say, Journ. Acad. Sc. Philad., iv, 308 (1825).

Stillwater, Okla., 1893.

(37).—*Melanoplus differentialis* Thom.*Acridium differentialis* Thom., Trans. Ill. State Agric. Soc., v, 450 (1865).

Very common all over Oklahoma and Indian Territory.

(38).—*Melanoplus inconspicuus* n. sp.—General color testaceous, paler beneath. Head not prominent, not elevated above the thorax, with a black post-ocular band. Interspace between the eyes slightly wider than the basal segment of the antennæ. Fastigium steeply declivent, broadly sulcate. Frontal costa percurrent, shallowly sulcate at and below the ocellus, coarsely punctate throughout. Eyes moderately prominent. Antennæ light reddish brown, darker on outer third. Pronotum with a shiny black band bordering the upper half of the lateral lobes, broader behind. Disk broadly convex, passing with a narrowly rounded angle into the subperpendicular lateral lobes. Median carina percurrent, slight but distinct. Front margin of the pronotum truncate, inconspicuously emarginate, posterior margin obtusely and roundly angulate. Prozona slightly longer than the metazona. The sides of the metathorax below the base of the wings are black with a prominent light-colored carina extending obliquely across them from the hind coxial cavities to the humeral angle. Prosternal spine extraordinarily large, almost bulbous and strongly retrorse. Interspace between the mesosternal lobes quadrate. Tegmina abbreviate, as long as the pronotum, moderately broad, overlapping and narrowing rapidly to a narrowly rounded apex. Posterior femora pale testaceous, a little darker above and with dusky genicular arcs. Hind tibiæ testaceous, spines black nearly to the base, twelve in number in outer series. Abdomen compressed, apex not swollen. Supraanal plate triangular, mesially sulcate throughout, narrowly and deeply at base, broadly at apex. The borders of the sulcus and the margin of the plate itself, especially the former, are considerably elevated. Just where the sulcus commences to broaden posteriorly it is interrupted by a transverse ridge and from that point backwards the tip is slightly inclined downwards. Furcula absent. Cerci moderately broad, narrowed considerably above in basal third, apically rounded and broadly sulcate, the entire cerci gently incurved, the extreme tips, however, parallel. Subgenital plate with lateral margins meeting with a rounded curve, not noticeably tuberculate. Length of body, 20 mm.; antennæ, 8.5 mm.; pronotum, 5 mm.; tegmina, 5.5 mm.; posterior femora, 12 mm.

One male; Creek Nation, Indian Territory, near Arlington, Okla., May 31, 1901, by Mrs. Nellie Caudell.

Type No. 6118, U. S. Nat. Mus.

This species belongs to the *Fasciatus* series of the genus *Menaloplus* and is allied to *juvenicus* Scudd, but the angulated posterior margin of the pronotum, larger retrorse prosternal spine, and the absence of the furcula, will serve to distinguish it from that more southern species. The cerci of the two species are very similarly shaped.

(39.)—*Melanoplus minor* Scudd.

Culoptenus minor Scudd., Proc. Bost. Soc. Nat. His., xvii, 478 (1875).

Two males, one female; Perkins, Okla., May 28, 1901. This locality is somewhat south of the usual range of this species.

(40.)—*Melanoplus packardii* Scudd.

Melanoplus packardii Scudd., Proc. Bost. Soc. Nat. Hist., xix, 287 (1878).

One male; Perkins, Okla., Aug. 16, 1901.

(41.)—*Melanoplus spretus* Thom.

Acridium spretis Thom., Trans. Ill. State Agri. Soc., v, 450 (1865).

This species occurs in both Oklahoma and Indian Territory, though I have none of my collecting.

(42.)—*Scudderia curvicauda* DeGeer.

Locusta curvicauda DeGeer, Mem., iii, 446, pl. 38, fig. 3 (1773).

One male, Stillwater, Okla., 1893; one female, Ringo, Cherokee Nation, Indian Territory, August 1896.

(43.)—*Microcentrum laurifolium* Linn.

Gryllus (Tettigonia) laurifolium Linn., Syst. Nat., ed. x, i, 429 (1758).

One female; Perkins, Okla., Aug. 13, 1901.

(44.)—*Microcentrum retinerve* Burm.

Phylloptera retinervis Burm., Handb. Ent., ii, 692 (1838).

One male; Stillwater, Okla., 1893.

(45.)—*Conocephalus crepitans* Scudd.

Conocephalus crepitans Scudd., Proc. Bost. Soc. Nat. His., vii, 450 (1862).

Three females; Perkins, Okla., August, 1901.

(46.)—*Conocephalus triops* Linn.

Gryllus (Tettigonia) triops Linn., Syst. Nat., ed. x, i, 430 (1758).

One female, Stillwater, Okla., 1893; one female, Perkins, Okla., 1901.

(47.)—*Orchelimum nigripes* Scudd.*Orchelimum nigripes* Scudd., Proc. Bost. Soc. Nat. Hist., xvii, 459 (1875).

One female, Stillwater, Okla., 1894; one male, Ringo, Cherokee Nation, Indian Territory, 1896.

(48.)—*Xiphidium strictum* Scudd.*Xiphidium strictum* Scudd., Proc. Bost. Soc. Nat. Hist., xvii, 460 (1875).

One female, Ringo, Cherokee Nation, Indian Territory, 1896; one nymph, Perkins, Okla., 1901.

(49.)—*Orchesticus nigromarginata* n. sp.—Color reddish yellow, probably lighter in life, with a broad black band on each side extending along the entire length of the insect, surrounding the eyes and mottling the face in front and extending nearly to the end of the abdomen behind, sometimes becoming obsolete towards the tip. On the thorax it is very conspicuous and is broader on the anterior part. On the head it becomes diffused, and beyond the eyes exists only as a fuscous mottling on the face, the mottling assuming a somewhat perpendicularly striated appearance. Vertex polished, light above with sides black. Fore tibiae with three spines above and two rows of six each below. Middle tibiae with a double series of spines above and below and the posterior tibiae spined on the outer three-fourths, one series below and two above, the spines much shorter than those on the anterior and intermediate tibiae, those on the lower side being minute. Anterior femora with a single minute black spine on the base of the outer third of the inner inferior carina. Middle femora unarmed. Hind femora very long, swollen at base and armed on the inner inferior carina with several small black spines. Oviposition nearly straight on the basal two-thirds, the end slightly curved upwards, color dark reddish, apically growing darker. Length of antennae, about 50 mm.; pronotum, 9 mm.; anterior femora, 8 mm.; posterior femora, 27 mm.; posterior tibiae, 27 mm.; ovipositor, 20 mm.

Type No. 6119, U. S. Nat. Mus.

Described from one female collected in Texas by Belfrage.

In the collection brought home by my wife was one female of this species collected at Perkins, Okla., Aug. 13, 1901. This specimen has the ovipositor only 18 mm. in length, but otherwise it agrees with the type. This species comes near to *O. americana* Sauss., but the shorter ovipositor and the different coloration will serve to distinguish it from that species. The spined posterior femora and shorter pronotum will separate it from *O. cragini* Brun.

(50.)—*Ceuthophilus pinguis* Scudd.*Ceuthophilus pinguis* Scudd., Proc. Amer. Acad. Arts Sc., xxx, 29, 86-87 (1894).

One female, Stillwater, Okla., 1896; three males, two females, Perkins, Okla., August, 1901. I have seen this insect in large num-

bers in "cyclone caves," where they eat any insects, including each other, that comes in their way.

(51.)—*Udeopsylla gigantea* Brnn.

Daihinia gigantea Brun., Bull. Washb. Coll., i, 127 (1885).

One male, Stillwater, Okla., 1895. This insect plainly belongs to the genus *Udeopsylla*, as all the characters indicate. All the tarsi are four jointed and the subgenital plate of the male is not greatly fissured. Prof. Bruner writes me that the type specimen had the tarsi mutilated.

(52.)—*Gryllotalpa borealis* Brnn.

Gryllotalpa borealis Brnn., Handb. Ent., ii, 740 (1838).

One female, one nymph; Stillwater, Okla., 1894. The first stridulation of this species was heard at Stillwater that year on the 10th of March.

(53).—*Miogryllus oklahomæ* n. sp.—A moderately stout species, black above, below pale testaceous, especially on thorax, scarcely so on abdomen. Head large, broader than the thorax and glistening black, palpi somewhat paler. Antennary fossæ above, ocelli, and a spot on each side of the head below the hinder part of the eye, pale yellow. Antennæ fuscous, basal segment shiny black. Pronotum dark fuscous above, pale testaceous below; nearly twice as wide as long, regularly and considerably decreasing in width from in front backwards and with a longitudinal depressed spot on the anterior half of the disk; posterior margin truncate, interior margin very slightly concave, lateral lobes nearly vertical in front, considerably bent inward posteriorly and with the lower margin considerably elevated and ascending from in front backwards. Tegmina as long as the body, well rounded posteriorly. The mediastinal vein is one-branched and there is a third "oblique" vein present. Wings hidden beneath the elytra, probably aborted. Legs fuscous, paler below towards the base. Anterior tibiæ with the foramen distinct but small on the inner side and large on the outer side, fully a third as long as the tibiæ. Posterior tibiæ less than two-thirds as long as the hind femora and with five yellow, dusky tipped spines on each side above. Length of pronotum, 2 mm.; elytra, 5 mm.; posterior femora, 8 mm.; posterior tibiæ, 5 mm.; width of pronotum in front, 4 mm.; behind, 3.5 mm.

Type No. 6120 U. S. Nat. Mus.

One male; Perkins, Okla., May 16, 1901, by Mrs. Nellie Caudell.

The one-branched mediastinal vein, short posterior tibiæ bearing but five spines on each side and the small size all go to prove this insect a species of *Miogryllus*. The presence of a third "oblique" vein is a discordant character, but Prof. Bruner thinks it belongs to that genus without doubt, and so I place it here with but little hesitation. It seems quite distinct from any described species of *Miogryllus*.

(54.)—*Gryllus abbreviatus* Serv.

Gryllus abbreviatus Serv., Orth., 336 (1839).

One female, Stillwater, Okla., 1893; one female, Perkins, Okla., Aug. 6, 1901.

(55.)—*Gryllus luctuosus* Serv.

Gryllus pennsylvanicus DeG., Orth., 335 (1839).

Two males, six females, Perkins, Okla., April–August, 1901; one female, Creek Nation, Indian Territory, May 31, 1901.

The males are short winged forms, but the female are all macrop-
terous.

(56.)—*Gryllus domesticus* Linn.

Gryllus (Acheta) domesticus Linn., Syst. Nat., ed. x, i, 428 (1758).

One male, two females, two nymphs; Perkins, Okla., August, 1901.

(57.)—*Œcanthus nigricornis* Walk.

Œcanthus nigricornis Walk., Cat. Derm. Salt. Brit. Mus., i, 93 (1869).

One male, one female; Stillwater, Okla., 1895.